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ABSTRACT

The two essays that make up this discussion paper explore the cultural implications for non-formal education. "Modes of Intervention" examines the typical fashion in which nations have aided the development of other nations through technical assistance. This mode comes from the assumption that a modern nation has special knowledge to assist a developing one. A different mode for intervention is suggested, however, one that requires the intervening nation to explore the institutions that already function within a society and build on them toward development goals. "Educational History and Non-Formal Education: A Methodological Strategy" sets out to articulate an historical study of education and to organize the inquiry along the lines of a search for similarities between educational arrangments and extra-educational variables. Education is cast as a dependent variable in a system where change in techno-economic arrangements generates change in social organization and in ideology. A typology is developed that matches primitive, modern, and traditional social units with techno-economic arrangements, social organization, and ideology, and with educational activities (enculturation, skill transfer, and knowledge transfer). This typology, delineated as a format for a cultural history of education or as a step toward an anthropology of education, is considered remarkable in that it does not automatically reveal a particular categorization for non-formal educational activities. (JH)

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NUMBER THREE

NON-FORMAL EDUCATION AND THE STRUCTURE OF CULTURE

Modes of Intervention

George H. Axinn and William J. Kieffer

Educational History and Non-Formal Education: A Methodological Strategy

Marvin Grandstaff

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ABOUT THIS SERIES . . .

Through this series of reports we invite readers interested in non-formal education to react to our work and to contribute toward building a new and exciting field of inquiry and practice. These preliminary reports aim at making as explicit as possible some of the crucial issues in the theory and practice of non-formal education. While they represent considerably more than exploratory thinking, we do not think of these statements in any sense as final. Developmental would be a better word to characterize a field still so open to definition and so diffuse in conception and practice.

A word about the Program of Studies in Non-Formal Education at Michigan State University may be in order. The Program, under the sponsorship of the Agency for International Development has the basic purpose of building a systematic knowledge base about non-formal education in response to the growing need for authoritative information about this mode of education in the developing countries. There are nine areas of study: (1) historical perspectives, (2) categories and strategies, (3) country comparisons, (4) learning effectiveness, (5) economic factors, (6) case study survey, (7) model feasibility, (8) administrative alternatives, and (9) participant training.

Teams of faculty members and research fellows in a number of academic disciplines are working on the nine subject areas and the papers in this series represent portions of their production.

We invite responses to these papers as an important means of helping us critically to examine our work in a new field only now being given real form and substance.

Cole S. Brembeck, Director
Institute for International Studies
College of Education
Michigan State University
East Lansing, Michigan
June 14, 1973

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MODES OF INTERVENTION

By

George H. Axinn
and
William J. Kieffer

There are at least two very different approaches to an international or a cross-cultural intervention in education.

The most common approach is characterized by such activities as the transfer of capital and the attempted transfer of technology. With respect to the latter, activities can be labeled as technical assistance, as institution building, as institution transplanting.[1]

The basic assumption of this strategy is that one "modernized" or "developed" society has something which some other nation or culture really needs. Therefore, what is attempted is either a transplant of an institution to the other society or a transplant of technology to the other society. In the most

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sophisticated ramification of this fundamental approach--"nation A" tries to assist the people in "nation B" to build the kinds of institutions which will be able to handle the technology of "nation A" in the society of "nation B."

The purpose of this paper is not to suggest ways of making this approach more effective or more efficient, although those are worthy goals. Our objective is to contrast this type of strategy with a totally different approach to the intervention into the affairs--and particularly to the educational system--of another nation-state or cultural area. If we label the type of intervention which has been described above as *the technical assistance/institution building approach,* we might label the contrasting strategy as the *exploration and discovery approach.*

With the alternative approach, instead of assuming that one "modern and developed" society has something which would be of benefit to the other "less developed" society, it is assumed that the other society already has similar basic institutions.

If one is concerned with education, the basic assumption is that although the other society may be less "modern" and less "developed" by some "standards," the function of education has, nevertheless, been going on in the other culture as well. The indigenous system would not exhibit the same forms as the foreign system does. Thus, it may be labeled by an outsider as "non-formal." But again, this tends to be a

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cultural-bound assessment of the other, using foreign criteria.

In the basic *exploration and discovery approach,* one assumes that fundamental functions are carried out in all social systems. Each nation has some kind of existing system of these functions. The first steps, therefore, are to *explore* the (other) situation, and *discover* the means which are used for carrying out the functions.

Many individual practitioners of the technical assistance approach have, of course, utilized personal strategies of "explore and discover." But the agencies and organizations of which they were a part tended to build their over-all strategies on the technical assistance/institution building approach.

THE EDUCATION FUNCTION

Let us consider an example from education. One can assume that every social system has some kind of educational function being carried on within it. The educational system can be analyzed, even by outsiders, and may be viewed from various perspectives. These perspectives might be labeled as structure, curriculum, staff, students, philosophy, facilities, and equipment.

In a "folk-village society"[2] in one of the less organizationally specialized areas of the world, one might find education carried out entirely within the extended family or kinship group. In this case, the family structure is, in fact, the education structure.

The family structure fulfills other functions, such as that of procreation, and production of food and shelter, and governance, but one of its functions may be labeled "education."

This family (as an educational system) has a curriculum, even though it is not found in writing as a course syllabus. There are certain things, however, which each age-grade learns, and there are teaching responsibilities of the various sexes and ages of persons within the family which can be described, analyzed, and perhaps modified through outside intervention. Each age-grade usually has specific "teaching" responsibilities with respect to the younger ones. Thus, although they are not hired as teachers--this "non-formal" educational system has teachers.

Similarly, there are students in the non-formal system. They tend to be differentiated by age-grade. Conventionally, the older persons teach the younger persons, who could be labeled as students.

And just as a university or vocational school has a "doctrine"[3] which guides its activities, so the extended family has a "philosophy of education" which affects the way in which its educational functions are carried out.

The rural folk-village may not have any identifiable facilities which are known as school buildings. However, whatever facilities are used in the educational process are, *de facto,* the educational

facilities. They may not look like school rooms at all--but they may function quite well as the facilities of education. The same may be said for equipment.

For example, in a very rural society, it is not unusual for one cluster of families to be weavers. They may grow cotton, spin it into thread and weave the thread into cloth. Another cluster of families may be potters. They dig clay, and make it into pots.

A third set of families in the same village, or in an adjacent village, might be woodcarvers. They h[illegible] certain tools; they know how to sharpen and maintain their tools; they select wood; and they carve various things.

In a certain sense, the families in each of these clusters serve as vocational schools. That is, each generation in the weaving families learns how to grow cotton, spin thread, and weave cloth from the last generation. It may be that certain ages and sexes have various tasks to perform, but each member of the group *learns* how to do those things which he needs to be able to do at the appropriate time.

The same kind of social system would also have other branches of its curriculum besides the vocational. For example, the young person learning to spin cotton might also be learning the religion of the group, and also about food at the same time.

The students in this family-school tend to begin the vocational part of the curriculum when they are older than those who are beginning the language

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learning part of the curriculum. Language learning tends to take place during the first year or two of life, and continues throughout life. Thus, an educational system in a society without schools may be described with the same conceptions we use to describe systems of schooling. It is the rendering of this sort of description that constitutes exploration and discovery.

A DIFFERENT STRATEGY

In the study of alternative strategies of cross-cultural/international interventions in education, one can identify a "change system" and a "target system." The change system may be an agency or an organization or a cluster of those in a more "modernized" or "developed" society. The target system is usually the society, or some portion thereof, in a less "developed" or "modernized" place.

The typical assumption is that the technology of the change system is good for all mankind, and it would be desirable for the target system to share that technology. With respect to the organizations or institutions which carry on education, the typical assumption is that there are no such organizations or institutions in the target system, or that they are weak and ineffective. Therefore, the institutions or organizations of the change system should be either transplanted or somehow developed within the target system. These may be labeled as fundamentally arrogant assumptions.

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What we are suggesting is that it would be a significantly different approach and strategy of intervention for representatives of the change system to enter the target system as "explorers" and try to "discover" the manifestations of education which already function there. This approach first examines the way of life, and then begins the intervention by suggesting minimal modifications to what already exists, rather than substituting with foreign transplants.

This approach has many advantages. It tends to lessen the natural points of conflict. It is less arrogant and less threatening to the target system. It is less likely to be rejected, as it builds upon existing institutions instead of challenging them. It is more likely to persist over time.

Put another way, an introduction of foreign technology, or organizational structure, tends to conflict with the geography, the social structure, the religions, the family systems, the politics, the economics, the indigenous educational system, and attitudes toward time, efficiency, etc. of the target culture. This conflict reduces the chance of success for interventions of that type. If small scale, unhurried interventions are made in terms of minor adjustments to the already existing system, the chance of persistence of change over time is much greater.

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As an example, a change in curriculum in a potting village might be nothing more than a demonstration of how the same clay can be handled in the same way to make a small ash tray instead of a large water pot. The ash tray might be marketed outside the village in exchange for cash. Here, the structure of the educational system is not changed at all; the teachers are still the older members of the family, and the students are still the younger members of the family.

The philosophy, the staff, the facilities, and the equipment do not have to change at all. However, there has been a small change in curriculum and participants in this educational system can learn something beyond that which they were learning before.

A more drastic change would be to suggest that the potting village send some of its sons and daughters to the weaving village for training, and others to the woodcarving village. In exchange, the potters might offer to train some of the sons and daughters of the weavers and of the wood carvers. This would be a structural change, and might have philosophical connotations, as well as demand shifts in facilities and equipment. But education still goes on primarily within the family, with the older generation serving as the teachers and the younger generation as the learners. This is less of a shift than the introduction, let us say, of a western-type vocational school into the target system.

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These alternative strategies of intervention are based on different doctrines. The doctrine for the usual approach of technical assistance and institution building--stated in its extreme form--is that the intervening nation "really knows best." That is, the technologies and the institutions which that nation has are believed to be superior to those of other places.

On the other hand, the strategy of *explore and discover* is based on a doctrine that the world exists--and that each group has made an adjustment to its environment. This doctrine assumes that "fixed" technologies and institutions already present in any given location were once appropriate for that location. But, as time goes by, and the environment changes, relatively fixed technologies and institutions become less appropriate. The intervention, itself, therefore, has the potential of "learning from" the other, as well as "teaching to" the other.

Finally, we must point out that those who intervene in the educational system of another country are not free from local influence. That is, it is not unusual for host country nationals--particularly representatives of the "international elite" or "third-culture" who themselves have studied abroad--to want for their own country exact replicas of some of the things they have seen abroad. These people usually press for something similar to that small bit of the outside world with which they are familiar. This gives the outside interventionist of the technical

00013

assistance/institution building type a rationale for saying, "but the Congolese asked for this," "this is what the Thai want," or "it was a Peruvian idea--they asked us to do it this way."

We suggest, however, that while it is certainly appropriate to include persons from the host country (target system), in the early planning of any such intervention, it may not be sufficient. Those aspects of the change system identified by target system representatives as desirable for their own country may or may not be so desirable.

International interventions tend to have political and diplomatic dimensions, as well as assistance dimensions. The amounts of money, the number of persons going each way, the supplies of equipment or commodities, and things of that sort may be governed by political commitments at home or diplomatic commitments abroad. These may be unrelated to the kinds of strategic questions we have been discussing above. As a result, an intervention may be made on a larger scale, for example, than those professionals who are involved in designing and implementing its strategy know is appropriate. However, they are "forced" to do it on a "grander" scale because of political or diplomatic commitments of those who are providing their resources. Conversely, reduction in the scale of total intervention--may be caused by shortages in resources--which may in turn be related to political considerations at home--or internationally.

Thus, while it is easy enough to recommend the strategy of *explore and discover* rather than the strategy of *technical assistance and institution building*, it would be unfair to judge past efforts at international intervention on purely professional merits. When errors have been made in the direction of too much "packaged" technical assistance or institutional transfer--rather than exploration and discovery--it may well have been based on a political or diplomatic rationale, quite independent from the strategy of intervention.

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FOOTNOTES

[1]For a comprehensive discussion of some of the problems of this type of aid giving, see Lester B. Pearson, *Partners in Development* (New York: Praeger Publishers, 1969); John M. Richardson, Jr., *Partners in Development--An Analysis of AID--University Relations, 1950-1966,* MSU Press, East Lansing, 1969; and the booklet, *International Development Assistance--A Bibliography,* The National Association of State Universities and Land-Grant Colleges, January, 1969.

For a review of the general problem in the so-called "less-developed world," see Gunnar Myrdal, *Asian Drama, An Inquiry Into the Poverty of Nations,* Vol. 3 (New York: Pantheon, 1968); Max F. Milliken and David Hapgood, *No Easy Harvest--The Dilemma of Agriculture in Under Developed Countries* (Boston: Little, Brown and Company, 1967); and Guy Hunter, *Modernizing Peasant Societies: A Comparative Study in Asia and Africa* ((London; New York: Oxford University Press, 1969); and C. E. Black, *The Dynamics of Modernization--A Study in Comparative History* (New York, Evanston, and London: Harper & Row Publishers, 1966).

[2]Robert Redfield, in "The Folk Society," *The American Journal of Sociology,* Vol. 52 (January, 1947), p. 293, defines a folk society as "small, isolate, non-literate, and homogeneous, with a strong sense of group solidarity."

[3]Doctrine may be defined for our purposes as "an expression of what the organization stands for, what it hopes to achieve, and the styles of action it intends to use. Doctrine motivates men, and is an essential characteristic of any institution." See Milton J. Esman and Hans C. Blase, "Institution Building Research: The Guiding Concepts," Inter-University Research Program in Institution Building, University of Pittsburgh, February, 1966, pp. 10-11.

00016

EDUCATIONAL HISTORY AND NON-FORMAL EDUCATION: A METHODOLOGICAL STRATEGY

By

Marvin Grandstaff

INTRODUCTION

The introduction of the idea and the facts of "non-formal education" into discourse about education and educational planning has a number of interesting and important consequences. Among those is the potential of the idea for raising the question of whether other patterns of education than the familiar one of schooling can be studied, planned and implemented. We are, to be sure, aware that a great deal of education takes place outside schools. We may even be willing to admit that some out-of-school learnings are equally as important as in-school ones. But, for the most part, we have dealt with non-school education through disclaimers. In talking about education and such topics as the role of education in economic and cultural development, we start with schools. Then we may say, "Of course, schools are not the only educational agencies," and then return again to our talk of schools. If someone asks about the educational system of a nation or a community we take them on a tour of schools. We do not take them into the homes where

language acquisition and primary-group socialization takes place, nor into the streets and countryside where self-concepts and socio-cultural roles are acquired and tested, nor into the marketplaces where consumer skills and attitudes are formed, nor into the work places where occupational capabilities, class consciousness and patterns of economic thinking are formed. We do not take them to playgrounds, union meetings, shopping centers, cocktail parties, craftsmen's shops, military installations, farms, factories, courts of law or the other many places with major, identifiable, educational dimensions. What the elevation of non-formal education to the status of an object of systematic investigation does is to require us to take the disclaimer seriously--to remove the schooling blinders from our educational vision.

One thing that is required for the treatment of non-formal education is a re-examination of the perennial question of how to study education. Ways of studying education have to be devised that can *accommodate* non-school educational events and processes, rather than just assigning them to a conceptual limbo that is vaguely recognized, but not treated theoretically. The major theoretical perspectives on educational phenomena are applicable almost exclusively to schools. Theories of educational administration are not concerned with choices among different modes of education but with changing and managing schools. Educational psychology is, for the most part, the

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adaptation of the theories and findings of general psychology to the special environment of the classroom. Educational philosophy deals with the clarification of linguistic formulations that occur with the context of schooling and with the formulation of systematic normative views of what schooling should be, while historical studies deal mainly with the ideas of normative philosophers of education and with the historical evolution and development of schools and general types of schooling, along with efforts to explain schooling types in terms of historical variables. While these school-centered theories may have utility and even a high degree of validity in regard to the school, they do not *necessarily* have an automatic transfer to educational contexts *other* than the school. To overlook this fact is to dissipate the "explosive" potential that the concept of non-formal education has for the theoretization of education generally. Furthermore, if the development of study and practice under the rubric of "non-formal education" does not proceed from a thoroughly reconsidered conceptual framework, there is a very real probability that planning and practice in "non-formal education" does not proceed from a thoroughly reconsidered conceptual framework, there is a very real probability that planning and practice in "non-formal education" will embody the schooling mode as an unexamined assumption. This seems to happen, for example, whenever some learning, presently located in a non-formal

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arena, is brought forward as an object for organized and deliberate education. Initial language learning is a good example in current deliberation about American education. If the problem is raised in the absence of a comprehensive conceptualization of education, the tendency is to impose a schooling structure on it--to suppose that what we ought to do is to "teach" initial language in a "pre-school" environment.

The articulation of a way to study education that has the scope and power to treat the idea of non-formal education is a complex undertaking--one that has several possible dimensions and, undoubtedly, a number of thinkable variants. The present study attempts to organize the inquiry along the lines of a search for similarities between educational arrangements and extra-educational variables. This is by no means a novel approach, nor, until there are specifications of both a typology of educational arrangements and of the particular cultural and historical variables to be examined, does it have much shape. Since the choice of historical and cultural variables involves primary strategic decisions, that issue will be treated first. The choice of variables centers first, on the general problem of finding a fruitful way to study education and, second--on a more specific problem--is it possible, on the basis of an analysis of the cultural and historical features present in a given case, to make informed judgments about the relative effectiveness and appropriateness of locating some educational

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function in one or another possible agency?[1] Put another way, this second problem (which provides the "practical" dimension of the study) is that of *fit* between a particular context (described in cultural and historical terms) and an array of educational modalities, in light of some stipulated function or objective. Given an educational objective, along with a context--the set of cultural and historical conditions in which it is to be pursued--do similarities between that context and other historical instances indicate some superiority for one educational modality as against others? With those two problems in mind, let us turn to the question of what suppositions about the study of culture and history inform this analysis.

EDUCATION AS A DEPENDENT VARIABLE

A first major decision is whether to treat education as reactive or as proactive (or both). There are major traditions of analysis of both sorts and, in point of fact, most historical investigations take a composite view, holding that education is both shaped by, and acts to shape, other components of culture. That is probably the view that has the best chance of doing full justice to the facts and it provides a useful tool for comprehensive historical explanations. For example, the labor marketplace influences vocational education and, in turn (especially in times of labor shortage) the character of vocational education

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has some impact on the labor marketplace. There are some problems with a composite view however. While it may supply good historical descriptions and explanations, it does not allow for very clear interpretation of information for purposes of prediction. "Why" questions tend to be answered with a not-very-illuminating, "well, either one or the other or both." Second, it builds in circularity and an almost inevitable infinite regress. If we wish to influence vocational education we should influence the labor marketplace first, but, on the other hand, if the labor marketplace is in part a product of vocational education, perhaps we should begin with vocational education and so on, ad nauseum. This is a familiar quandary for educators and it results in part from a failure to begin with a commitment to taking either a proactive or a reactive view and following it out to its investigative limits, in order to see what its theoretical credentials may turn out to be.

The situation is compounded, at a different level, by a frequently intense desire on the part of educators to see their work as formative and proactive. Although that desire may be rooted in altruism and a commitment to social activism, it can seriously distort the effort to attain conceptual clarity. When the self-concept and ideology of the educator becomes a significant determinant of conceptualization, the result is almost sure to be confusion. This comment is not intended as a plea for a "value free science,"

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but only as an admonition to liberate our methodological decision making, to the fullest extent possible, from the ideologies that bolster our practices.

For reasons that will emerge later in the discussion, this analysis proceeds on the supposition that education is almost always reactive. Educational patterns--their character, their emergence, their maintenance and their decline--are taken to be the products of non-educational variables and of changes in those other variables. In conventional research terms, educational patterns will be treated as dependent variables and other components of culture as independent variables. We will return shortly to the question of what independent variables are to be treated and in what fashion.

AN EVOLUTIONARY VIEWPOINT

A second decision involves two dimensions. First, shall educational phenomena be treated as isolated in time or as events in a process. That is, should the view taken be synchronic (isolated in time) or diachronic (processual)? This is not a difficult question here, since historical study is, almost by definition, a diachronic enterprise. It is not so much interested in freezing, for inspection, a set of events or an educational or cultural type, as in finding processual configurations of which events and types are parts. The case for diachronic analysis is strengthened when, as a determinant of assumption

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making, there is some concern with development and change, such as that posed here by the problem of locating function. Change, as a process, can best be approached through understandings of processes.

Once the decision to focus on patterns of process is made, the second question arises--that of how process is to be construed. Should the objects of investigation be regarded as being rather closely bounded by locale, historical epoch, economic type and so on, and treated in relational, rather than causal terms? Or should the components of process be approached as parts of overarching patterns of high generality in which causal patterns may be identified? (In conventional terminology, should the approach be idiographic or nomothetic?) This is a considerably more difficult issue, and one in which there is considerable merit on both sides. A particularistic view has the capacity to treat and theoretize highly precise and detailed data, but it runs the risk of obscuring or missing general patterns that might enhance the utility of theoretical formulations, especially in applications that involve the derivation of predictions and planning decisions from identified similarities between present and other known situations. A general view has the power to reveal and integrate similarities, but builds in the possibility of overlooking differences of detail that may influence comparison-based applications.

00024

The investigation, while recognizing the merit of particularistic inquiries, will take a generalist and causal (nomothetic) posture. The decision is based partly on the infant character of the study of non-formal education--general frameworks seem necessary as a condition of identification of the domain of the concept--and partly on the inquiry requirements of the concern for making judgments about the appropriateness to specific projects of different educational patterns. The methodological position taken here, as well as the reasoning behind the position, reflect the formulations of Marvin Harris. Harris cites, as an advantage of the nomothetic approach, its adaptability to precisely the sort of problem that is here termed the problem of location of function:

> *As a causal, as well as diachronic and synchronic model, the economic--structural--ideological concentration provides the basis for stipulating the more or less durable and influential parts of the system. This provides, in theory at least, some prospect of being able to discern degrees of functional effectiveness or "fit," as between an innovation and an older element in the system.*[2]

The position taken here is basically an evolutionary one. It takes educational patterns to be adaptive responses to changing *material* conditions. Different educational modalities, then, are the result of cultural adaptations based in evolutionary dynamics. The evolutionary approach to the study of cultural phenomena has been argued at length and in detail by Harris and it is worthwhile to cite some of the main

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conclusions of his analysis here. Following a plea to regard anthropology as the "science of history," he writes:

> *The burden of my argument is that the basic principle of a macro-theory of sociocultural evolution is already known. This is not to say that it is known in the form that is familiar to us from physics--as the Newtonian laws of motion, or as the laws of quantum mechanics--but rather in a fashion that closely approximates the kind of principle that has governed research in evolutionary biology since the time of Darwin. The kind of principle to which I refer, in other words, has its precise analogue in the doctrine of natural selection. In this analogy, the meaning of "principle" is not equivalent to the statement of the specific "laws" of evolution, but rather to the statement of a basic research strategy, from the application of which there is an expectation that a nomothetic causal understanding of sociocultural phenomena may be achieved.*[3]

What we wish to ask, of different educational modalities, is the question of what the environmental conditions were to which the modalities were adaptive responses. Then, given similar environmental conditions, we may predict, or even plan for, the emergence of similar educational patterns.

It is now possible to locate schooling within a context of education, broadly conceived. The school may be regarded as an evolved form that, like any other form, is a specific adaptation to describable material conditions.

There is a necessary caveat, to the effect that the above formulation is applicable only to "columnar evolution," in which one stage leads to another.[4] We should not neglect interpretations of a "branching" kind, in which a pattern is an adaptation to a particular set of circumstances and not a transition to some further stage. In a general evolutionary scheme, branching and non-transitional forms are important, if for no other purpose than their capacity to serve as explanata for the lack of universality in general evolutionary theories. Efforts must be made, to the extent possible, to identify forms and stages in terms of their status as transitional states, in order to clarify general theory and, at the practical level, to identify stages that, because they are not transitional, are inappropriate to transition-intending planning. Still, the main burden of the present analysis is the examination of the possibility of formulating an evolutionary theory of educational forms and the transitional character of educational patterns will form the central focus.

Another problem that must be addressed in an evolutionary framework is that of whether evolution is multilinear or unilinear.[5] Is there one, or more than one, identifiable pattern of cultural development? In its most basic form this is a statistical argument and, sometimes, an argument about statistics. What is the strength of postulated similarities and what strength of correlation must be present in order

00027

to call a correlation a "similarity?" Without examining that argument at length, this analysis will accept the hypothesis that cultural evolution is multilinear, a conclusion that is taken by Harris, following Steward and Wittfogel. Historically, the conclusion arises from the failure of attempts to formulate a single evolutionary scheme that would adequately account for both the feudal, nucleated and personalistic cultures of Northern Europe and sub-Saharan Africa and the centralized, bureaucratic and communal societies of Asia, Northern Africa and Meso-America. The work of Steward and Wittfogel, based in a distinction between the cultural dynamics established by hydraulic agriculture in the latter societies (high population density, centralization and so on) and those associated with hunting, gathering and dry-land agriculture in the former (sparse population, shifting and dispersed social and political ties and so on) indicates at least two major patterns which may, in general, be termed "Eastern" and "Western" cultures.[6] This point, while it remains somewhat controversial, has a substantial weight of evidence in its support and is an especially important one for the general problem of planning change and development, since it raises serious questions about the transferability to "Eastern" cultures of "Western" practices. Although the implications of the distinction will not be a central focus here, it merits recurrent attention and sustained, intensive analysis.

00028

With the stipulation that the historical study of non-formal education should treat education as a dependent variable within an evolutionary perspective, it is possible to turn to the question of what sorts of extra-educational variables may be treated.

TECHNOLOGY AND CULTURE

In searching for the relationship between educational variables and others, there is a diversity of possible structures of variables, all of them vested with at least some plausability and supported by a number of adherents. It is possible, for example, to take "personality" as an explanatory base (independent variable) and explain all other features of culture as manifestations of personality. This program, characteristic of Ruth Benedict and Margaret Mead, following Franz Boas, finds, in personality, a cause for economic, social, educational, artistic and other cultural phenomena. Personality, especially group personality--"national character" or "spirit of the age," exemplified in Benedict's famous Dionysian and Appolonian categories of group personality--is the object of research and theoretization. Attractive as personality and culture may be, it presents major problems for an evolutionary perspective, since to place it in an evolutionary context it is necessary to ask what evolved personality is--an effort that has produced a great many stubborn dilemmas and an enormous amount of silliness. (Indeed, Boas and his

00029

followers took the turn of denying the validity of an evolutionary approach to culture, freeing themselves of the necessity of talking about evolved personality.) Historical studies provide a range of focusing variables, from "spirit of the age" types, through aggregate cultural types, such as R. Freeman Butts suggests when he argues for "civilization building" as an organizing concept for the comparative and historical study of education,[7] or Turner's familiar frontier hypothesis (which, in its application, is multidimensional, despite a tendency to give priority to an economic base), to narrowly Marxist economic interpretations.

The perspective of this investigation is chosen for its compatibility with an evolutionary strategy and, to a lesser degree, because its explanatory use seems, consistently, a bit more convincing and parsimonious than that of other perspectives. The thesis can be stated fairly simply: cultural phenomena (including educational ones) can be understood and explained as consequences of the action of the techno-economic environment upon social organization and ideology. Technology, in this case, is intended as a comprehensive term, rather than in the narrow meaning it sometimes takes--that of sophisticated, machine-based modes of industrial production. The use intended here is consistent with that given by Marx to "modes of production,"[8] or, more recently, to Marshall McLuhan's conception of "technology."[9]

In addition to machinery, "technology" may include the nature and distribution of wealth (hence, "techno-economic") and all forms of energy management--agricultural fertilizer and irrigation, road and other transportation systems, techniques of value and commodity exchange (markets, money, credit), communication techniques and so on.

This is not a novel hypothesis. It is characteristic of a long tradition in historiography and anthropology. Harris, building on the work of Leslie White and Julian Steward, has provided a recent and extensive formulation of the view that technology, broadly construed, is a powerful tool for the explanation of culture. Harris casts his approach as a reformulation of White's "Basic Law of Evolution." That "law," as set out by White, says:

> *Other factors remaining constant, culture evolves as the amount of energy harnessed per capita per year is increased, or as the efficiency of the means of putting the energy to work is increased.*[10]

Harris reformulates White in the following way:

> *It is this reformulation which actually deserves our greatest attention, because it amounts to nothing less than a statement of the research strategy through which one proposes to arrive at the formulation of the most productive statements of diachronic and synchronic regularities. This is the strategy which often reluctantly acknowledges its debt to Marx: The most powerful generalizations about history are to be found by studying the relationship between the qualitative and quantitative aspects of culture energy systems as the independent*

> *variables and the quantitative and qualitative aspects of the other domains of sociocultural phenomena as the dependent ones. It needs to be emphasized in this context that the meta-generalization embodied in the cultural-materialist research strategy is fully analogous to and at least as well vindicated by specific cases as the vaunted "principle of natural selection" in biology.*[11]

It should be noted here that a second element of Harris' research strategy--the formulation of propositions about the cultural impact of technological conditions into statements of covariance that can be tested statistically--will not be developed in this analysis. This is not because the construction of covariance comparisons is not important--it most assuredly is--but because the data for such studies is not available to this study. What will be attempted here is a general inspection of educational modalities in terms of the techno-economic variables along with a cluster of analyses of specific educational problems and contexts conducted in techno-economic terms.

TECHNOLOGY, SOCIAL ORGANIZATION AND IDEOLOGY

If technology is taken as the primary determinant of culture, where, in general, shall we look for its effects? More specifically, is there a way of organizing the diverse data that constitute "culture" that will allow for a systematic inspection of the effects of techno-economic orders? A general convention has characterized the work of White, Steward and others in their tradition--the tradition that Harris

00032

calls "cultural materialism." That convention divides the whole of culture into three broad categories--technology, social organization and ideology.[12] "Technology" is, as already noted, a covering concept for material conditions. "Social organization" covers networks of formal and informal relationships between individuals and groups, relations of super- and sub-ordination, obligation and reciprocity and so on. On a cultural-materialist view, these relations emerge as a methodology for the successful accomplishment of techno-economic imperatives. Kinship systems, governments, caste systems and social class systems provide examples of social organization. Finally, ways of organizing for techno-economic purposes are abstracted and shaped into myth, ritual, tradition and psychological configurations ("personality"). This is the realm of ideology and in it are located many of the data in which historians and cultural anthropologists are most interested. The cultural materialist posture regards alterations of material, techno-economic conditions as the primary change models.

THREE MODELS OF CHANGE

Although the emphasis in this study is on the relationship between techno-economic variables and educational patterns, and although evolutionary patterns are held to be based in technology, it may be worthwhile to discuss briefly the problem of conceptualizing change in light of the technology-

00033

organization-ideology categorization. It is theoretically possible to construct the change process in terms of an intervention at any one of the three postulated levels. Thus, one might attack problems of a techno-economic sort through attempts to change ideology. This is a fairly familiar doctrine, often phrased as "in order to change (x) we must first change the minds of men." It is especially familiar to educators, since schools are frequently charged to work ideological changes that are supposed to secure at least eventually, altered material conditions. An excellent historical example of the adoption of an ideological change model is to be found in the Progressive movement in American education. (The currently fashionable "Human Potential Movement" has much the same assumption in regard to change as did Progressive education, as well as a number of common textural elements.) Although Progressivism had a number of dimensions, several of them techno-economic in character, education was one of the most popular vehicles for the reform effort, especially in the case of John Dewey and Deweyians such as Harold Rugg, William Heard Kilpatrick and John Childs. The Progressives sought to alter what they saw to be the evils of unfettered industrial capitalism by devising educational techniques for the accomplishment of a more egalitarian, "democratic" ideology. There is a fairly extensive consensus, much of it centering around the analysis of Progressivism given

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by Lawrence Cremin,[13] that that effort failed. The precise reason for the failure is not so important as the hard fact that that fairly massive attempt to obtain reform through an ideological model had very little consequence, either in education or the wider society.

It is also possible to model change at the level of social organization. The operating premise is to the effect that, if social arrangements are altered, changes will occur in both the techno-economic and ideological spheres. This is the working premise, at least covertly, of a great many cases of attempts to initiate change. The idea of the common school is firmly rooted in the notion that a forced change toward an egalitarian educational form will, more or less automatically, produce both a transformation of "national character" in an egalitarian direction and important changes in the base of economic and occupational distribution. Racial integration of schools, as a special sub-case of the common school strategy, is another excellent example. A social-organizational model of change is deeply embedded--at a near-mythic level--in the ideological tradition of liberalism. International assistance, too, frequently has looked as if it were based on the assumption that the introduction of social organizational patterns characteristic of advanced cultures will somehow contribute importantly to the alteration of the economic base toward "modernity" and industrialization. The track

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record of attempts to foster change through an organizational model--one is tempted to call it an administrative model, since there seems to be a powerful impetus for administrators to respond to problems by changing the organizational flow chart--is, at very best, mixed. At worst--as, for example, in Christopher Jencks' recent evaluation of the results of the common school idea[14]--the results are almost utterly discouraging.

Ideological and social-organizational forms may be regarded as secondary models of change. The fruitfulness of both forms may be subjected to serious question, although there is probably inadequate evidence to reject changes worked through secondary mechanisms. Even so, a great deal of dissatisfaction with conventional secondary models, such as ideological schooling and political reform, seems rooted in a questioning of the capacity of secondary measures to accomplish changes in the techno-economic sector. Balanced against that is the accumulating evidence, discussed at length by Harris,[15] in support of the cultural-materialist model. Without denying entirely the viability of secondary models, the main focus of these remarks will be on the previously discussed process, in which changes in techno-economic arrangements generate changes, first at the level of social organization and, second, at the level of ideology.

00036

ENERGY AND ITS MANAGEMENT

It is possible to construct a cultural typology on the basis of energy present within a system. Energy, however, is an extremely abstract concept, and one that embraces a very wide range of phenomena. It becomes necessary to operationalize the concept in some way that preserves a degree of generality but provides a more concrete object of inspection. Eric Wolf, in his work on peasant societies, has used the notion of "fund" in a way that seems to coincide, roughly, with White's notion of "energy."[16] For peasant societies, Wolf distinguishes three orders of funds: replacement funds--those used to maintain a given level of subsistence; rent funds--those funds paid over to landholders for the use of land; and ceremonial funds--those expended for ceremonial purposes--in peasant societies, a primary mechanism for maintaining the economic equality upon which the system of mutual aid, necessary to the success of peasant agriculture depends. It is also possible to identify two other orders of funds present in systems having large energy components: investment funds--those that are expended in order to increase the size of the energy component in the system and surplus funds--those which are expended in "leisure" or "luxury" commodities. On this general view, "funds" may be regarded as abstracted energy and money as "symbolized" or "stored" energy.

00037

Social units, then, can be characterized in terms of the kind and degree of funds available. In some societies only replacement funds are available--in general, the societies we might term "primitive." In other cases, as Wolf shows, possible funds are exhausted in replacement, rent and ceremony, leaving nothing for either investment or surplus. Finally, a society may have substantial quantities of investment funds. (Because surplus funds are a minor variable in most societies and because they pose special problems of analysis, they will not be given further consideration here.) In the peasant case, the rent-taking element of the total society has, of course, funds for investment and even surplus. The relationship between peasantries and rent-takers is, for Wolf, the crucial feature of cultures that might be called "peasant societies." This simplified scheme, especially the characterization of societies in terms of their investment potential, is a staple of analysis for economists.

The continuum running from a balance between available energy and immediate consumption (replacement funds only) to societies in which investment funds are adequate to sustain regular expansion of the energy component may be divided, first, into extreme categories, such as "primitive" and "modern." It is also helpful, and consistent with several conventions of cultural, economic and historical studies, to introduce an intermediary position--one in which

00038

there are funds above the replacement level but not adequate to reach an investment level capable of sustaining consistent energy growth. That situation--which obtains in most of the world outside of Europe and North America--may be called "traditional."

The conventional division of societies into primitive, traditional and modern, is, in these terms, a division based directly upon funds and, through funds, on the energy variable. The categorization of social units--nations, regions, and so on--according to the state of funds is a fairly difficult, but not impossible task. For a further parameter of categorization, let us look at another dimension of energy management that is closely related to the continuum of funds.

As energy increases, and as it is abstracted, there seems to be a strong correlation with cultural differentiation. Specialization emerges, between individuals, between social groups and between different dimensions of an individual's life activities. The concept of differentiation is now a commonplace of historical and cultural research. Like funds, differentiation yields fairly readily to inspection and even quantification and it fits well with conventional primitive-traditional-modern typology. Primitive societies display little differentiation in either the intra-individual, inter-individual (intra-group) or inter-group realms; while modern societies show substantial differentiation in the more modern, urban sector.

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It should be possible, at least for purposes of gross historical investigation, to use the variables of funds and differentiation in order to characterize societies as primitive, modern and traditional in order to have a typology within which educational patterns can be located and analyzed.

EDUCATIONAL TYPOLOGY

It is now possible to begin the business of shaping an educational typology that can accommodate the conceptual demands of talking about "non-formal education." We may construct a three-by-three matrix around the three dimensions of culture: techno-economic, social organization and ideology and the primitive-traditional-modern typology. Then, if education is seen as a pervasive activity, we could talk about "techno-economic education in traditional societies," ideological education in modern societies" and so on. This would be adequate if it could be shown that educational forms coincided with categories in that matrix--if, for example, schooling was the characteristic modality of one, two, or three of the categories and not of any other. Unfortunately, even a fairly cursory inspection of the cultural typology raises serious doubts about there being strong correlations between the cultural categories and educational modes. An additional element seems to be called for.

One way of providing further structure lies in adding, as a third dimension to the typology, a

conventional taxonomy of educational activities--one that, sooner or later, finds its way into almost all taxonomic discussion of education. The terminology used here is "enculturation," "skill transfer" and "knowledge transfer." This taxonomy, deliberately cast as a set of transactions, rather than in content or learning terms, is roughly analogous to such categorizations as Benjamin Bloom's well-known "taxonomy of educational objectives" (affective, psychomotor and cognitive domains) and Wallace's division of the "matter of learning" into "technic, morality and intellect."[17] The formulation given here differs from similar taxonomies not so much in terms of what sorts of things are placed in the categories--they are pretty much the same in that respect--as in the way in which categorized phenomena are model d. The preference here is for a modeling that centers on identifiable and describable transactions, involving learners and transfer agents in a situation, rather than unidimensional concept (e.g., objectives) or internal states of learners (e.g., values or affects). Let us look a little more closely at these categories and then place them in conjunction with the cultural typology already developed.

ENCULTURATION

"Enculturation" is intended here as a rather broad construct, naming the transactions by means of which people acquire characteristic, "modal" or

00041

"habitual" patterns of psychological organization and behavior. This general construction takes no notice of differences between types of transfer agents in the transaction and, in these terms, "enculturation" is meant to subsume, rather than to contrast with the conventional concepts of "acculturation" and "socialization," since those contrasts are based in distinctions among transfer agents. The enculturation transaction is a covering term for the transfer of the sorts of learning matter that are sometimes termed "attitudes" and "values." Among the matters that fall under the head of enculturation are habits and patterns of perception, modes of ratiocination, structural relationships between the individual and the social and physical world, accreted and culturally stable "meanings" and so on. In a sense, enculturation is the total set of transactions by means of which a person is "given his world."

SKILL TRANSFER

As enculturation provides a person with a world, skill transfers are transactions in which he learns to act in the world he is given. He learns to act linguistically, socially, physically, occupationally, politically and so on. Skill, like enculturation, is intended broadly, in order to cover all of those cases in which a transaction results directly in a capability to shape and manipulate the material conditions of environment.

00042

KNOWLEDGE TRANSFER

Finally, we need a category to summarize transactions in which a person comes to *comprehend* his world. It is, perhaps, a little misleading to call this "knowledge transfer," since it does not violate ordinary usages of "knowledge" to say that a person "knows" as a consequence of both enculturation and skill transfer. Still, there is a sense in which we want to reserve "know" for a special state in which one "understands" or "*really knows*" in virtue of his comprehension of the matters of his world. A child learns how to speak (skill transfer) and acquires a world view from the structure of the language he uses (enculturation), but we are tempted to say that he "really knows" language only when he is able to form statements *about* language--its structure, definitions and so on. Similarly, we commonly make a distinction between reading skill and reading comprehension. "He reads fairly well (skill) but he doesn't know what he is reading (knowledge)." However fuzzy the precise point of delineation may be between skill and knowledge or between enculturation and knowledge, the distinction is a staple of our discourse about education and in reasonably clear-cut cases it provides an adequate tool for crude typing of educational phenomena.

A COMPLEX TYPOLOGY

We can now formulate a complex typology of educational events by lining out three types of education for each of the nine elements of the cultural typology, i.e., "techno-economic enculturation in primitive cultures," "ecchno-economic skill transfer in traditional cultures" and so on. Further expansion of the typology is possible by identifying main sub-varieties under each of the three educational categories (or under the development stages of the cultural typology, as for example, Wolf's sub-divisions of peasant "ecotypes").[18] One might, for example, divide enculturation into perception, cognition and self-identification and then speak about "cognitive aspects of social-organizational enculturation in modern cultures" or some such formulation. Obviously, such a complex typology is far too cumbersome for full treatment in a limited analysis. It should, however, provide a comprehensive framework for the systematic theoretization of education. A synchronically constructed "anthropology of education" might adopt, as a general developmental strategy, the elaboration of a complex typology and the systematic study of the many types, in terms of a standard set of variables, such as learner, transfer agent, subject matter, reward system and so on, taking each component of the typology as a "system," and endeavoring to see how each system "works." Such an enterprise might, in turn, identify general configurations or "ways in

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which systems work," permitting a contraction of the conceptualization into a more manageable general theory of educational transactions. Attractive as that enterprise may be, it is outside the scope and intent of this effort, since the object here is the historical development of educational patterns and not their detailed characterization.

The diachronic study suggested by the typology involves the inspection of variations in the categories formed by the conjunction of cultural realms (techno-economic-social-ideological) and the educational types (enculturation-skill transfer-knowledge transfer) between evolutionary stages (primitive-traditional-modern). With that as a general program, we might isolate specific studies such as "a comparative study of ideological knowledge transfer in primitive, traditional and modern cultures." This would provide a nine-part structure of analysis--a format for what might be termed a "cultural history of education."

Another possibility would involve tracing the impact of a material change--the introduction of a new crop or a road system, for example, through the social organizational and ideological realms, with special attention to changes in one or more educational domains, e.g., "a comparative study of ideological education in systems with and without all-weather, arterial highway systems." Eventually, a more sophisticated sort of study might be possible utilizing statistical methods, e.g., "covariance

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between educational specialization and economic differentiation." While neither the time nor the data for the accomplishment of such a rather grandiose program is available, it does provide a kind of "grand design" for the structuring of the effort and data that can be utilized.

NON-FORMAL EDUCATION

Now, what (if anything) can be said about the concept of non-formal education in terms of the foregoing discussion? The formative role of that conception in this analysis has already been discussed, and that is the imperative it poses for a much broader conceptualization of education. While the power of non-formal education to serve as the foundation for a critique and reformulation of our study of education is considerable, it turns out that, in acting on that imperative, the concept of non-formal education itself tends to disappear, since the concept is an ambiguous and multi-dimensional way of introducing fairly crude distinctions among several different orders of educational arrangements. An inspection of the typology does not seem to reveal any categories in which "non-formal education" seems to be more heavily concentrated than "formal" or vice versa, with the important exception of the greater incidence, scope and multi-functionality of schooling in modern as against primitive and traditional societies. Given that, it is probable that an understanding of "non-formal

00046

education" will have to be based on a diachronic view. In terms used here, the articulation of the formal-non-formal distinction is a task for "cultural history of education" rather than for "anthropology of education." Such an articulation, if it were to turn out to be a reasonable enterprise, would have to depend on a fairly well-developed body of analysis and, for now, the question of what non-formal education "really is" will be placed in abeyance. It is replaced with a more refined and typologically useful conceptual structure. This is not necessarily an unfortunate outcome, since it is one way of avoiding the pitfalls of having a rubric--"non-formal education"--that, because it subsumes too much, has little discriminatory power and, thus, limited descriptive or theoretical utility.

Of course, this does not mean that we should immediately drop the formal-non-formal distinction from our vocabulary. What it does suggest is that, in specific instances of its use, care should be taken to say what, in that particular context, the term is intended to name. If that is done, the distinction can still have considerable force, especially when the context of discourse is some concrete dimension of educational practice--i.e., administrative arrangements, sponsorship, learning situation design and so on. If, however, the focus of an effort is to exploit the explosive potential of the distinction for the conceptualization of education generally, the

character of the distinction itself should be regarded as problematic, at least until the inquiry it initiates has run a substantial portion of its course.

00048

FOOTNOTES

[1]The general problem of location of educational functions has been developed and discussed in Cole S. Brembeck, "The Strategic Uses of Formal and Non-Formal Education" and Marvin Grandstaff, "Are Formal Schools the Best Place to Educate," both in *New Strategies for Educational Development*, edited by Cole S. Brembeck and Timothy J. Thompson (Lexington, Mass.: Lexington Books, 1972), pp. 41-64.

[2]Marvin Harris, *The Rise of Anthropological Theory* (New York: Thomas Y. Crowell Company, 1968), p. 235.

[3]*Ibid.*, pp. 3-4.

[4]See Harris' discussion of this point, *ibid.*, pp. 647-651.

[5]*Ibid.*, pp. 642-644.

[6]*Ibid.*, pp. 671-683.

[7]R. Freeman Butts, "Civilization as Historical Process: Meeting Ground for Comparative and International Education," in *Education in Comparative and International Perspectives*, edited by Kalil I. Gezi (New York: Holt, Rinehart and Winston, 1971), pp. 17-34.

[8]Karl Marx, *The Grundwisse*, ed. and trans. by David McLellan (New York: Harper and Row, 1971), pp. 16-33.

[9]Marshall McLuhan, *Understanding Media* (New York: McGraw-Hill, 1964).

00049

[10]Leslie White, *The Evolution of Culture* (New York: McGraw-Hill, 1959), pp. 368-369.

[11]Harris, pp. 650-651.

[12]*Ibid.*, pp. 230-231, 660.

[13]Lawrence Cremin, *The Transformation of the School* (New York: Alfred A. Knopf, 1969).

[14]Jencks' work is the result of a massive evaluational study of education, conducted at Harvard University.

[15]Harris, pp. 654-687.

[16]Eric R. Wolf, *Peasants* (Englewood Cliffs, N.J.: Prentice-Hall, 1966), pp. 10-48.

[17]Anthony F. C. Wallace, "Schools in Revolutionary and Conservative Societies," in *Cultural Relevance and Educational Issues,* edited by Francis A. J. Ianni and Edward Storey (New York: Little Brown and Company, 1973), pp. 230-249.

[18]Wolf, pp. 19-48.

00050